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(54) CAPACITY-EXPANDING MEMORY DEVICE

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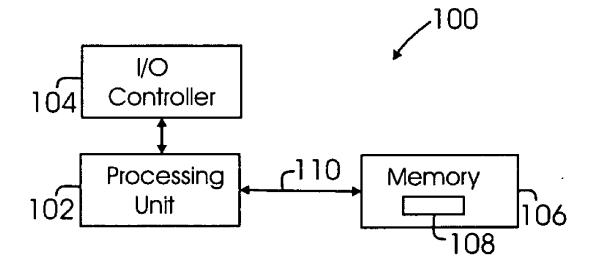
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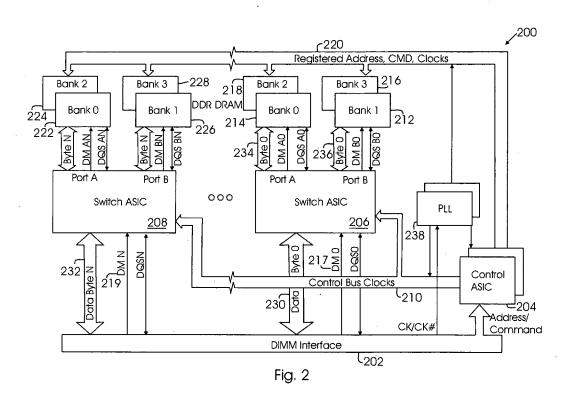
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(57)**ABSTRACT**

The invention relates to a device, system, and method for expanding the memory capacity of a memory module. A control unit and memory bank switch are mounted on a memory module to selectively control write and/or read operations to/from memory devices communicatively coupled to the memory bank switch. By selectively routing data to and from the memory devices, a plurality of memory devices may appear as a single memory device to the operating system. That is, the invention expands the addressable memory banks on a module by making two smallercapacity memory devices emulate a single higher-capacity memory device.







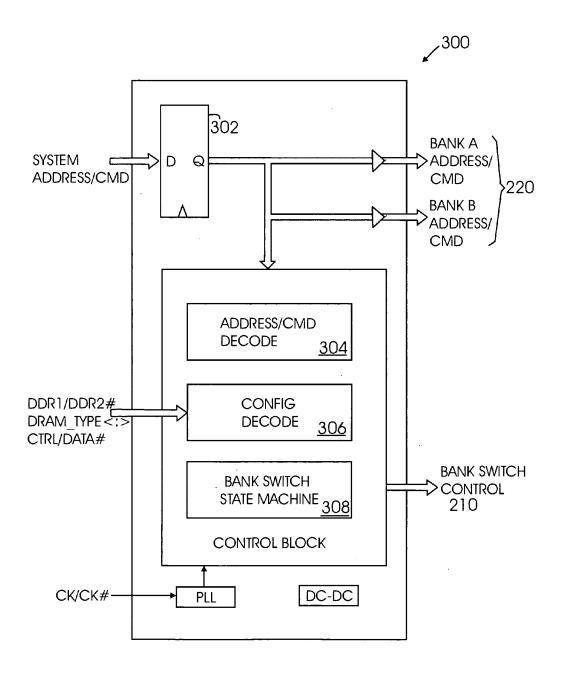


Fig. 3

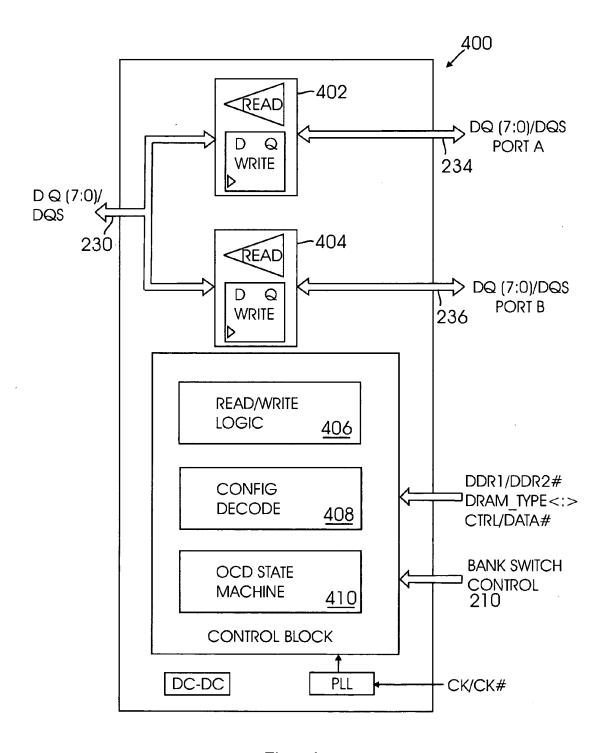
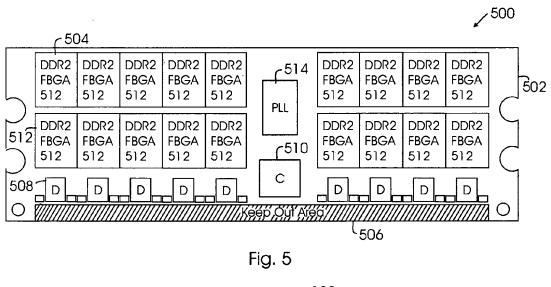


Fig. 4





100

104

Controller

Processing
Unit

Fig. 1

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